

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RYUICHI IKEDA and KATSUMI ADACHI

Appeal No. 1999-1928
Application No. 08/835,635

ON BRIEF

Before FLEMING, LALL, and BARRY, *Administrative Patent Judges*.

FLEMING, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 14, all of the claims pending in the present application.

The invention relates to a vehicular AC generator having a salient-pole-rotating stator supported by brackets. In particular, Appellants disclose a pair of fans attached to the front side and rear side of the cores of the AC generator's rotor in which at least one of the fans having an outer

surface forming an outer diameter in the range between 85% and 96% of the outer diameter of each of said cores. See page 8 of the specification which refers to Figure 12. On page 4 of the specification, Appellants disclose that because the diameter of the fan is made to be in the range between 85% and 96% of the outer diameter of the core, noise caused by the fans themselves can be reduced and the sound caused by cutting wind generated between the fans and core and during the rotation of the fan also can be reduced. Appellants further disclose that another aspect of the invention is that the side plate affixed to the end portion of a blade of at least one of the pair of fans has an outer diameter equal to or smaller than the outer diameter of at least one of the pair of fans. See page 8 of the Appellants' specification referring to Figure 12. Appellants further disclose on page 4 of the specification that because the side plate is arranged in the above manner, there is only a small reduction of the amount of cooling due to the decrease of the outer diameter of the fan.

Independent claim 1 is reproduced as follows:

1. A vehicular AC generator, comprising:

Appeal No. 1999-1928
Application No. 08/835,635

a rotor supported by a rotating shaft and a stator arranged on an outer periphery of said rotor, said stator having stator coil ends;

a pair of cores included in said rotor and supported by said rotating shaft, and having a plurality of trapezoidal-shaped claws as magnetic poles protruding on the outer peripheral edges of said pair of cores and alternately arranged in such a way each of said claws coupled to one of said pair of cores is arranged on a concave portion between adjacent said claws coupled to the other of said pair of cores;

a pair of fans attached to the front side and the rear side of said cores, at least one of said fans having an outer surface forming an outer diameter in the range between 85% and 96% of the outer diameter of each of said cores; and

a side plate fixed to an end portion of a blade or at least one of said pair of fans, said side plate having an outer diameter equal to or smaller than the outer diameter of said at least one of said pair of fans;

each of said claws having a tapered portion for gradually decreasing the outer diameter of a shoulder portion of said claw in the direction toward an end surface of said core so that the outer diameter of at least one of said cores faced to said at least one of said fans becomes substantially the same as the outer diameter of said at least one of said fans and a gap is formed between said at least one of said fans and a corresponding one of said stator coil ends along a corresponding one of said tapered portions.

The Examiner relies on the following references:

Tanaka et al. (Tanaka)	5,241,230	Aug. 31,
1993		
Lefrancois et al.	5,270,605	Dec. 14,
1993		
(Lefrancois)		

Appeal No. 1999-1928
Application No. 08/835,635

Saval et al. (Saval) 5,325,003 Jun. 28,
1994

Claims 1 through 4 and 6 through 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lefrancois in view of Saval.

Claim 5 stands rejected under 35 U.S.C. § 103 as being unpatentable over Lefrancois in view of Saval and further in view of Tanaka.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the brief¹ and the answer for the respective details thereof.

OPINION

We will not sustain the rejection of claims 1 through 14 under 35 U.S.C. § 103.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a ***prima facie*** case of obviousness. ***In re Oetiker***, 977 F.2d 1443, 1445, 24 USPQ 1443, 1444 (Fed. Cir. 1992). ***See also In re Piasecki***, 745

¹ Appellants filed an Appeal Brief on January 11, 1999. Appellants filed a Reply Brief on May 12, 1999. On July 23, 1999, the Examiner mailed an Office communication stating that the reply brief had been entered and considered.

Appeal No. 1999-1928
Application No. 08/835,635

F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. **In re Fine**, 837 F.2d 1071, 1074, 5 USPQ 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. **Oetiker**, 977 F.2d at 1445, 24 USPQ at 1444. See also **Piasecki**, 745 F.2d at 1472, 223 USPQ at 788 ("After a **prima facie** of obviousness has been established, the burden of going forward shifts to the applicant.")

An obvious analysis commences with a review and consideration of all the pertinent evidence and arguments. **See In re Oetiker**, 977 F.2d at 1445, 24 USPQ2d at 1444 ("In reviewing the Examiner's decision on appeal, the Board must necessarily weigh all of the evidence and arguments."). With these principles in mind, we commence review of the pertinent evidence and arguments of Appellants and Examiner.

Appeal No. 1999-1928
Application No. 08/835,635

Appellants argue in the Reply Brief that combined references combined fail to teach or show in a range wherein at least one of the fans has an outer surface forming an outer diameter in a range between 85% and 96% of the outer diameter of the cores. Appellants argue that the Examiner erred in finding that these claim limitations were taught by Savals' drawings in which the Examiner takes actual measurements from the Saval drawings. Appellants argue that there is no description in Savals' specification of the relative dimensions of the fans and rotor core and that since there was no description any relative dimensions in the patent drawings are not relevant to the issue at hand.

Upon our review of Saval, we agree with the Appellants that Savals' specification does not teach or suggest a pair of fans attached to the front side and rear side of the cores, at least one of said fans having an outer surface forming an outer diameter in the range between 85% and 96% of the outer diameter of said cores as claimed by the Appellants. The Federal Circuit has stated "it is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the

Appeal No. 1999-1928
Application No. 08/835,635

specification is completely silent on the issue." **Hockerson-Halberstadt Inc., v. Avia Group Int'l Inc.**, 222 F.3d 951, 956, 55 USPQ F.2d 1487, 1491 (Fed. Cir. 2000).

In regard to the rejection of claim 5, we note that the Examiner relies on Saval in the same manner as above. Therefore, we will not sustain the rejection of claim 5 for the same reasons as we enunciated above.

Based on the foregoing, we conclude that the Examiner has failed to establish a **prima facie** case of obviousness with respect to claims 1 through 14. Accordingly, the Examiner's decision is reversed.

REVERSED

Appeal No. 1999-1928
Application No. 08/835,635

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
PARSHOTAM S. LALL)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
LANCE LEONARD BARRY)	
Administrative Patent Judge)	

MRF/LBG

Appeal No. 1999-1928
Application No. 08/835,635

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20037-3202

